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| 10/615,400 | 07/09/2003 | Herbert Busse | 7116-1 | 8469 |

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EXAMINER

PATEL, VISHAL A

ART UNIT PAPER NUMBER

3673

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Please find below and/or attached an Office communication concerning this application or proceeding.



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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/615,400
Filing Date: July 09, 2003
Appellant(s): BUSSE ET AL.

MAILED
APR 04 2006
GROUP 3600

Busse Herbert
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 1/10/06 appealing from the Office action mailed 7/14/05.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct. In view of appellants' arguments claim 32 is allowable. The new status of the claims is as follows: The claims on appeal are 15, 16, 17, 18, 20 and 24.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

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3,743,304

Lindeboom

7/3/1973

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 15 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Richards (US. 4,976,444).

Regarding claim 15: Richards discloses a low friction seal assembly comprising a guide element (12) for guiding a shaft (intended use but 42 considered as a shaft), the guide element having a groove (groove holding seal ring 72) extending therein, the groove having a bottom wall (wall contacting 104) and a first side wall (side wall contacting a seal 106), a sealing ring received within the groove, the sealing ring having a cylindrical inner surface (cylindrical inner surface having grooves 96-98) adapted to be positioned adjacent a shaft surface to be sealed (intended use but the sealing ring is used to seal 42 which is part of the impeller 38), an end face (face holding the seal 106) disposed adjacent the groove first side wall and an outer cylindrical surface (surface holding 104) disposed adjacent the groove bottom wall, a seal (106) disposed between the sealing ring end face and the groove first side wall so that any pressure occurring between the groove bottom wall and the sealing ring outer cylindrical surface is maintained less

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than the pressure between the shaft and the guide element (pressure is restricted from flowing across the end face of the seal ring by the seal 106).

The seal has a width that is larger than a gap between the first side wall of the groove and the end face of the seal ring. The seal is charged with a pressure medium.

Regarding claim 24: The seal ring having a second side wall (wall 80) associated with the guide element groove, a drainage channel (as showed in figure 5 which includes all the limitations of claim 15) operatively associated with the second side wall and extending outwardly through the guide element from the second side wall (the drainage channel extends thorough the seal ring and the guide element).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 16-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richards in view of Lindeboom (US. 3,743,304).

Richard discloses the invention substantially as claimed above but fails to disclose that the seal comprises a formed part and a plastic sealing ring. Lindeboom discloses a seal ring, the seal ring has a side wall (side wall having groove 54) having a groove (54) that holds a seal (seal formed by 66 and 68), the seal comprising a formed part (64) made of plastic or rubber material and a plastic ring (66) and the seal is deformed by a pressure in a system having the seal ring. It would have been obvious to one having ordinary skill in the art at the time the invention was

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made to configure the seal of Richards to have a formed part and a plastic ring as taught by Lindeboom, to provide seals under high pressure and temperatures (column 3, lines 32-46 of Lindeboom).

(10) Response to Argument

Appellant's arguments filed 1/10/06 have been fully considered but they are not persuasive.

Appellants' argument that Richards does not disclose a groove extending within a guide element for receiving a sealing ring is not persuasive because member 12 is the guide element and has a groove that receives the seal ring 72.

In response to applicant's argument that the seal ring of Richards is not adjacent to a shaft, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Furthermore the seal ring 72 is adjacent to a portion of an impeller 38, where it is well known that impellers are rotating members, which equates to a rotating shaft or member.

Appellants' argument that the claim does not contain a statement of intended use is not persuasive because as seen in claim 15, lines 2 and 7, "for guiding a shaft" and "adapted to be positioned adjacent a shaft surface to be sealed", respectively, these limitations are intended use limitations.

Appellants' argument that the seal ring fails to disclose a cylindrical inner surface is not persuasive because the surface having grooves 94, 96 and 98 is the cylindrical inner surface

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relative to the opposite surface 76. Furthermore each element 86 and 88 have an inner most tip that has a cylindrical surface and is inner relative to the outer cylindrical surface 76.

Appellants' argument that Richards does not teach a sealing ring end face and a groove first side wall so that any pressure occurring between the groove bottom wall and the sealing ring outer cylindrical surface is maintained less than the pressure between the shaft and the guide element is not persuasive. Richards teaches the sealing ring end face (end face having a surface 82 having a groove 84 holding a seal 106), a groove first side wall (first side wall opposite the surface 82 and contacting the seal 106) and a seal (106) placed between the first side wall and the sealing ring end face. Due to the seal 106, none of the pressure from the high-pressure side area 70 is passing across the seal to the groove bottom wall.

Appellants argument to claim 32 that Richards does not teach that propagation of the pressure medium is caused to take place only between the cylindrical inner surface of the sealing ring and the shaft surface to be sealed with a substantially continuous decrease in pressure occurring along the length of the sealing ring is persuasive. The rejection of claim 32 is withdrawn.

(11) Related Proceeding(s) Appendix

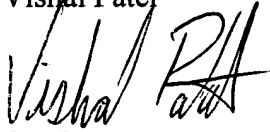
No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Vishal Patel

A handwritten signature in black ink, appearing to read 'Vishal Patel', with a stylized flourish at the end.

Conferees:

VP, Vishal Patel

DJ, Dorell Payne

AP, Alan Richard